



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

AS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,463	01/04/2001	Akira Arai	9319A-000183	3626

7590 10/11/2002

Harness, Dickey & Pierce, P.L.C.
P.O. Box 828
Bloomfield Hills, MI 48303

EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
----------	--------------

1742

13

DATE MAILED: 10/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/754,463

Applicant(s)

ARAI ET AL.

Examiner

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 and 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- I. Claim 8 is indefinite in that it is unclear how the melt-spun ribbon has been milled "with a cooling roll".

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1742

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious Schultz et al. (Schultz, cited by applicants in the IDS submitted January 4, 2001).

Schultz teaches specific example alloys having compositions that are encompassed by the alloy composition recited in the instant claims and bonded magnets made there from (Schultz, the Abstract, line 6, page 200, Figure , page 201, line 16, page 203, Table 2, the first 8 alloys and Figures 6 to 8, and Page 204, Table 3). Schultz teaches that the disclosed alloys are made by melt spinning a melt of the alloy (Schultz, page 199, under the heading Experimental) which is the same process used to make the instantly claimed alloys (see page 15 of the instant application).

The claims and the references differ in that the references are silent with respect to the magnetic properties recited in the instant claims and the presence of hard and soft magnetic phases.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloys taught by Schultz have compositions that are encompassed by the instant claims and are made by a process which is similar to, if not the same as, applicants' process of making the instantly claimed alloy. In view of this, Schultz's alloys would be expected to possess all the same properties as recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

Art Unit: 1742

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

Claim Rejections - 35 USC § 103

1. Claims 1 to 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al.

Wang teaches a specific example alloy having a composition that, with the exception of the boron content, is completely encompassed by the instant claims (Abstract, line 1). Wang's example alloy contains 4.58 at % boron while the instant claims require a minimum of 4.6 at% boron. Wang teaches that the alloy is a nanocomposite having a hard and a soft magnetic phase (Abstract). Wang teaches a method of making the disclosed alloy that is, similar if not, the same as applicants' method of making the claimed alloy composition (Wang, page 5097, under the heading "II. EXPERIMENTAL").

The claims and Wang differ in that Wang does not teach the boron content recited in the instant claims, is silent with respect to the magnetic properties recited in the instant claims and does not teach all the process limitations recited in the dependent product by process claims..

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the example alloy taught by Wang differs only in the B content (Wang's alloy contains 4.58 at% while the claims require 4.6 at%) and thus closely approximates the instantly claimed alloy composition and is so close that one would have expected that Wang's alloy and the claimed alloy to have the same properties, *Titanium Metals v. Banner*, 227 USPQ 773 and MPEP 2144.05. Further the process limitations recited in the instant dependent product by process claims do not necessarily lend patentability to the claimed product, MPEP 2113.

2. Claims 1 to 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (cited by the applicants in the IDS submitted May 7, 2002).

Kojima teaches a nanocomposite rare earth-iron-boron alloy having soft and hard magnetic phases (Abstract, lines 1, 2 and the last 3 lines). Kojima teaches two specific examples alloys having the compositions $\text{Fe}_{76}\text{Co}_{10}\text{Nb}_2\text{Nd}_7\text{B}_5$ and $\text{Fe}_{76}\text{Co}_{20}\text{Nb}_2\text{Nd}_7\text{B}_5$ (page 6576, right column, the last line) which with the exception of the rare earth content are encompassed by the instant claims. These example alloys contain 7 atomic % rare earth whereas the instant claims require a minimum of 7.1 atomic % rare earth. Kojima teaches a method of making the disclosed alloy that is, similar if not, the same as applicants' method of making the claimed alloy composition (Kojima, page 6576, under the heading "III. EXPERIMENTAL").

The claims and Kojima differ in that Kojima does not teach the boron content recited in the instant claims, is silent with respect to the magnetic properties recited in

Art Unit: 1742

the instant claims and does not teach all the process limitations recited in the dependent product by process claims..

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the example alloy taught by Kojima differs only in the rare earth content (Kojima's alloy contains 7.0 at% while the claims require a minimum of 7.1 at% rare earth) and thus closely approximates the instantly claimed alloy composition and is so close that one would have expected that Kojima's alloy and the claimed alloy to have the same properties, *Titanium Metals v. Banner*, 227 USPQ 773 and MPEP 2144.05. Further the process limitations recited in the instant dependent product by process claims do not necessarily lend patentability to the claimed product, MPEP 2113.

3. Claims 1 to 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohri et al. (Mohri, US Patent No. 4,765,848).

Mohri teaches a magnetic powder having a composition that overlaps the alloy composition recited in the instant claims (Mohri, column 3, lines 30 to 42 and column 5, lines 5 to 30). Mohri also teaches a process of making the disclosed magnetic powder that is similar to the process disclosed in the instant application (Mohri, column 5, lines 45 to 50).

The claims and Mohri differ in that Mohri does not teach the exact same alloy composition, is silent with respect to the claimed magnetic properties nor does Mohri teach all the process limitations recited in the dependent claims.

Art Unit: 1742

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the powder alloy taught by Mohri has a composition that overlaps the alloy powder composition recited in the instant claims and therefore is considered to establish a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549 and MPEP 2144.05. Further, in view of the fact that the alloys taught by Mohri is made by a process which is similar to, if not the same as, applicants' process of making the instantly claimed alloy, the alloy taught by Mohri would be expected to possess all the same properties as recited in the instant claims, *In re Best*, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." (emphasis added by the Examiner), see MPEP 2112.01.

With respect to the process limitations recited in the instant claims it is the Examiner's position that the process limitations recited in the instant product by process claims do not necessarily lend patentability to the claimed product, MPEP 2113.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 to 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 14 and 24 to 34 of copending Application No. 09/871,600 and claims 1 to 14 and 13 to 33 of copending Application No. 09/875,789. Although the conflicting claims are not identical, they are not patentably distinct from each other because the alloy compositions recited in each of these applications overlap when M is Nb in the claims of 09/871,600 and 09/875,789.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

3. Applicant's arguments filed July 29, 2002 have been fully considered but they are not persuasive.

Applicants argue that Schultz's bonded magnet although containing more magnetic powder has lower magnetic properties than applicants' Example 1 bonded magnet and therefore "the magnetic powder of the present invention is better than that of Schultz"; and that this "is because Schultz does not satisfy the relationship represented by the formula called for in claims 1 and 3." The Examiner is not persuaded. Applicants have not pointed out the specific properties in Schultz and applicants' Example 1 on which the applicants are relying on in making their argument. Applicants' general reference to the data in the specification with no explanation of what facts or data applicants are relying on is not persuasive, In re Borkowski 184 USPQ 29. Further, the Examiner does not agree with applicants' assumption that because the magnetic properties of Schultz's bonded magnets are allegedly not as good the magnetic properties of applicants' bonded magnet then Schultz's magnetic powder is not as good as applicants' magnetic powder. The alleged differences in magnetic properties of the respective bonded magnets is not necessarily caused solely by the magnetic powder but rather also could be the result of how the bonded magnets are made, for example, specific resin used, molding pressure, time and temperature, curing temperature and time, etc.

Art Unit: 1742

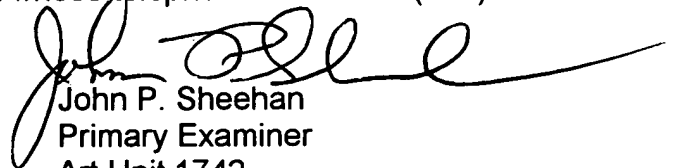
Applicants argue that because Schultz is silent with respect to the density, ρ of the bonded magnet the formulas in claims 1 and 3 cannot be satisfied. The Examiner is not persuaded. First, the silence of a reference to a particular property does not lend patentability to the claimed invention. Second, the formulas recited in claims 1 and 3 are directed to the bonded magnet. Applicants' are not claiming a bonded magnet but rather are claiming a magnet powder. The properties of the bonded magnet do not lend patentability to the claimed powder in that the properties of the bonded magnet are not necessarily the direct result of the magnetic powder but rather may be a function of how the bonded magnet is made including all process operating conditions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (703) 308-3861. The examiner can normally be reached on T-F (6:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



John P. Sheehan
Primary Examiner
Art Unit 1742

jps
October 8, 2002